THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS P. BINDER, DONALD K. HADDEN
and LOWELL J. SIEVERS

Appeal No. 95-0073
Application 07/896,154[1]

ON BRIEF

Before WINTERS, WILLIAM F. SMITH and WEIMAR, Administrative Patent Judges.

WINTERS, Administrative Patent Judge.

DECISION ON APPEAL

This appeal was taken from the examiner's decision rejecting claims 1 through 14, which are all of the claims remaining in the application.

[1] Application for patent filed June 10, 1992. According to appellants, this application is a continuation-in-part of Application 07/498,344, filed March 23, 1990, now abandoned.

Claim 1, which is illustrative of the subject matter on appeal, reads as follows:

1. A process for preparing a second dextrose composition having a solids content of at least 99% dextrose comprising

nanofiltering a first dextrose composition having a solids content of about 80 to 97% by weight dextrose and at least 2% of saccharides selected from the group consisting of di-saccharides, trisaccharides and mixtures thereof; and

recovering as the permeate said second dextrose containing a solids content of at least 99% dextrose. [Emphasis added.]

The references relied on by the examiner are:

Zupancic (Zupancic '122)	4,429,122	Jan. 31, 1984
Zupancic et al. (Zupancic '953)	4,747,953	May 31, 1988

The issue presented for review is whether the examiner erred in rejecting claims 1 through 14 under 35 U.S.C. § 103 as unpatentable over the combined disclosures of Zupancic et al. ('953) and Zupancic ('122).

OPINION

Independent claim 1 defines a process for preparing a composition, having a solids content of at least 99% dextrose, comprising: (1) nanofiltering a first dextrose composition having a solids content of about 80 to 97% by weight dextrose and at least 2% of saccharides selected from the group consisting of di-saccharides, trisaccharides and mixtures thereof; and (2) recovering as the permeate a second dextrose composition containing a solids content of at least 99% dextrose. Having

carefully reviewed the combined disclosures of Zupancic et al. ('953) and Zupancic ('122), we find that these references are insufficient to support a conclusion of obviousness of claims requiring appellants' nanofiltration step.

"Nanofiltration" is a term of art. As can be seen from a review of appellants' specification, "nanofiltration" is a membrane separation process which uses a pressure driven membrane having rejection characteristics between those common in reverse osmosis and ultrafiltration. The membrane is called a "nanofilter" membrane. In nanofiltration, rejection is low for salts with monovalent anion and non-ionized organics with molecular weight below 150. Rejection is high for salts with di- and multivalent anions and organics with molecular weight about 300. See the specification, page 6, first paragraph, and page 10, first full paragraph. Also, see U.S. Patent No. 4,944,882, particularly column 2, lines 33 through 41. For the sake of completeness, we enclose a copy of the '882 patent with this opinion. In our judgment, the examiner has not established that the combined disclosures of Zupancic et al. ('953) and Zupancic ('122) would have led a person having ordinary skill to the claimed process which requires (1) nanofiltering a first dextrose composition having a solids content of about 80 to 97% by weight dextrose and at least 2% of saccharides selected from the group

consisting of di-saccharides, trisaccharides and mixtures thereof; and (2) recovering as the permeate a second dextrose composition containing a solids content of at least 99% dextrose.

The examiner acknowledges that Zupancic et al. ('953) and Zupancic ('122) disclose, in relevant part, ultrafiltration but not nanofiltration. According to the examiner, however, "it would appear that the terms have the same meaning." The examiner argues that it is unclear whether "nanofiltering" distinguishes over the prior art "or recites a concrete limitation;" and that it makes no difference whether the filtration process is "designated" nanofiltration or ultrafiltration. See the Examiner's Answer, page 7, first full paragraph, and page 12, first paragraph. We disagree. For reasons already spelled out in this opinion, we find that "nanofiltration" is an art-recognized term understood by persons skilled in the art. Appellants' usage in the specification and claims is consistent with the art-recognized meaning of "nanofiltration" in the scientific literature, and serves to distinguish over related membrane separation processes such as ultrafiltration.

Zupancic et al. ('953) and Zupancic ('122) disclose many working examples, illustrating the preparation of dextrose compositions having a solids content far less than 99% dextrose. Zupancic et al. ('953), however, discloses one example which we

consider "the closest prior art." See Zupancic et al. ('953), Table 8 bridging columns 21 and 22, penultimate example where the permeate contains 98.9% dextrose. Although 98.9% is very close to 99%, nevertheless, the examiner has not established that Zupancic et al. ('953) or Zupancic ('122) discloses or suggests a nanofilter or a process which requires the step of nanofiltering. Therefore, the combined disclosures of the prior art references would not have led a person having ordinary skill to the claimed invention.

The examiner's decision is reversed.

REVERSED

SHERMAN D. WINTERS Administrative Patent Judge	)	
WILLIAM F. SMITH Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
ELIZABETH C. WEIMAR Administrative Patent Judge	)	

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